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# ANTHROPOLOGICAL PERSPECTIVES ON HIV/AIDS TRANSMISSION DURING DELIVERY

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The objective of this text is to offer a theoretical framework of anthropological research on the question of mother-to-child transmission of HIV by confronting this problematic with different approaches in the anthropology of reproduction. I will first briefly consider the question of MTCT from the point of view of public health and then suggest research perspectives in the "socio-cultural" anthropology of reproduction presented by the problematic of MTCT and HIV. Finally, I will discuss to what extent other anthropological approaches ("medical", "social change" and "political") open multiple research perspectives on the question of MTCT and HIV. While having been studied from the point of view of the problematic of breastfeeding (Desclaux 2000, 2001, 2002 and Bonnet Morel, Legrand-Sébille 2002), until now this question has not been extensively examined from the standpoint of childbirth.

**Mother-to-child transmission of HIV from the point of view of public health**

Mother-to-child transmission of HIV is responsible for 90 per cent of the HIV infections among children, the remaining 10 per cent being infected either by contaminated blood or through sexual abuse. The balance of biomedical knowledge pertaining to MTCT and HIV allows of the following assertions (Newell 2001, WHO 2001). While transmission is relatively rare at the beginning of pregnancy, it is frequent at the end of pregnancy and during delivery, when an estimated 70 per cent of the mother-to-child transmissions take place (De Cock, Fowler and Mercier 2000). The immediate consequences of childbirth can also constitute a context for transmission, which leads to the employment of the term "peripartum"; finally, MTCT can occur until the conclusion of breastfeeding. At present, the transmission rate is 2 per cent in countries of the North in a context of a well equipped medical setting. In default of prevention, the rates vary between 13 and 48 per cent (13 to 32 per cent in the developed countries, 25 to 48 per cent in the developing countries). The rate of transmission during labour and delivery is estimated at between 10 and 20 per cent.

Antiretroviral therapy during pregnancy, delivery and the neonatal period can reduce the rate of MTCT by two-thirds, in the absence of breastfeeding. The other main preventive measures are the practice of prophylactic Caesarean sections and the proscription of maternal breastfeeding. These measures, which make it possible to reduce the rate of transmission to less than 2 per cent, are not "routinely" available in countries of the South. Several of the latter countries have set up programmes for the prevention of MTCT based on screening in prenatal consultation, a short-course regimen adapted to the healthcare systems of countries with limited resources (mainly AZT and nevirapine, or nevirapine alone) and recourse to alternatives to prolonged maternal breastfeeding. Under these conditions, mother-to-child transmission is reduced by roughly 10 per cent.

The preventive measures to be taken during the peripartum period also appear in a report by ICM, WHO, UNICEF, UNFPA and UNAIDS (1999). This report, which represents a reference for norms and preventive practices in maternal health, describes the role that midwives can play in the prevention of MTCT. Their responsibility resides primarily in providing information and education to women about sexually transmitted diseases, including HIV/AIDS, in particular regarding screening, and by adopting low-risk childbirth practices.

In short, although childbirth would be a critical moment in mother-to-child transmission (between one and two children from ten children born of seropositive mothers are contaminated at that time), we do not avail of precise epidemiological data on the potential risk factors pertaining to this period. Apart from the strict application of the "classic" rules of asepsis, the proposed

preventive measures relate to the period of delivery and a longer period, mainly prior to delivery, involving interactions between health personnel and the pregnant women. The rare studies conducted to evaluate the impact of programmes to distribute nevirapine show their limitations in developing countries, where "many women refuse the test, refuse the treatment, even though they know themselves to be seropositive, or again they do not take the nevirapine tablets at the time of delivery, although they had undertaken to do so. All these refusals greatly modify the cost-efficiency analyses that did not take this parameter into account." (Heard 2002). The contribution of research in the social sciences concerning the anthropology of reproduction would therefore appear to be evident. The description of the numerous parameters marking out the context of childbirth can lead to a better understanding of individual and collective representations in which the actors and their decisions evolve when confronted with the question of mother-to-child transmission of HIV.

The significance of childbirth is determined by the representations of maternity and its socialization. Maternity is a private matter which calls into question a person's identity: her image of the body, her self-awareness, her relation to others. It is also a "collective" matter managed at the family level and by the state, which has the responsibility and the control over the health aspects of birth. It is along this axis, which extends from the private domain to the state, that a theoretical approach to the MTCT of HIV during childbirth can be constructed. Aware of the porosity of the boundaries proposed, but concerned to present a comprehensible schematic framework, I explore four main areas of analysis corresponding to "socio-cultural" approaches, and then discuss the "medical"[1], "social change" and "political" approaches of the anthropology of reproduction.

## The "socio-cultural" anthropology of reproduction as a theoretical framework of research on mother-to-child transmission of HIV

The so-called "socio-cultural" approach to reproduction is apt to describe beliefs and practices in a given milieu and examines maternity as an experience of the body and construction of the person.

*Representations of different stages of maternity until delivery*:

The socio-cultural approach is concerned, for example, with representations of procreation, with precautions and interdictions involving the pregnant woman and with the description of childbirth practices. This approach is relevant in our framework, for it involves the analysis of the symbolic aspects of practices surrounding the cutting of the umbilical cord, the expulsion of the

[1] "Medical" and "socio-cultural" are defining terms borrowed from Carol and MacClain in Jeffery (1993).

afterbirth and the management of the placenta. This will make it possible to better understand the logics underlying the prevailing practices and to measure the admissibility and acceptability of preventive measures. The management of asepsis, for example, differs according to the context of childbirth, whether it is normal or with complications. It involves the manipulation of blood and amniotic liquids during the period of labour and the delivery, as well as the handling of the child during obstetric procedures. One might ask, for instance, what effect a lavage of the vaginal canal with chlorhexidine[2] would have during the labour of a Inuit woman in which the midwife can influence the sex of the foetus by making certain gestures (O'Neil and Kaufert in Ginsburg 1995).

WHO recommendations regarding practices pertaining to the cutting of the umbilical cord with a sterile blade also come up against the non-observance of the rule, which may be of a cultural nature. For example, among the Tuaregs of the Hoggar (Guidetti and Lallemand 1997), the knife used to cut the cord must be asked of the patriarch of the family group, who alone has the blade that gives birth to boys of the patrilineage. One can imagine the consequences which the transgression of this rule would have on the social integration of the newborn child in the community. What is more, the recommendation to cut the cord immediately after the extraction of the infant is likely to meet with resistance. In Malaysia, for instance, where, according to Lallemand (1987), the soul enters the body of the child at the moment the midwife cuts the cord; or in Afghanistan where, according to a birth attendant, "The cord must be cut when the placenta has come out, if not the placenta goes back to the heart of the woman and she dies"[3]. It should be noted, however, that the degree of the "cultural shock" that can be brought about through the introduction of new practices will be inversely proportional to the degree of acculturation in the context under study.

The techniques of extraction and management of the placenta can also be a basis of HIV transmission. It is necessary to observe whether, as in certain African societies, the placenta is returned to the women so that it is specifically treated at home (burial in the courtyard); in these cases, the women and the obstetrician or health personnel manipulate the placenta according to different modalities, depending on the context (some African health departments spray the placenta with bleach in order to sterilize it before returning it to the woman)[4]. As the practices surrounding the placenta are seen to be directly involved in the system of the individual's representation of the

[2] This practice was earlier recommended to diminish MTCT at the time of the infant's passage into the genital canal at birth. Its efficacy not having been proved, it now tends to be abandoned.
[3] Personal notes of the author (Taiwara, Ghor province, Afghanistan).
[4] Personal communication from Alice Desclaux.

life cycle and of kinship[5], the question of the management of the placenta must be treated with precaution.

*Representation of bodily fluids*:

The cultural approach to the transmission of HIV in childbirth practices also requires that the representations of bodily fluids be taken into account, among which are sperm and menstrual blood. These can be explored in the representations of procreation. For example, among the Samos of Burkina-Faso (Héritier 2002), sperm and blood have a common origin: bone marrow and spinal chord. The woman uses the blood she no longer loses to produce the body of the child. The menstrual blood nourishes the foetus and changes to milk after the birth. The very existence of MTCT of HIV seems scarcely admissible, for example, among the Wéménous tribes of Benin (Bartoli 1998), where the child is produced by the sperm, leaving to the woman the role as receptacle, or among the Seri Indians of Mexico (*ibid.*), who think that the sperm is stored in a small bag located on the wall of the uterus and that when it is full, the spirit of the child flies down and enters the body of the mother. More generally, the representations of blood in a given culture are an incontrovertible theme in understanding whether the representation of HIV contamination is different according to the nature of the blood mentioned. For example, the Lobis of Burkina-Faso and of the Ivory Coast consider the constitution of the blood to differ according to its bodily origin and distinguish "the water of the body" from the "water of the head" (Cros 1990).

*Representations of HIV transmission by birth attendant*:

The nature of the representations of transmission can also be explored in relation to the question of the risk of HIV transmission between the woman giving birth and the. birth attendant. This risk, and the prophylactic measures indicated in the treatment of accidents with exposure to blood, are perhaps not fully taken into account by birth attendant ; conversely, the attitude and practices of the birth attendant can be dictated by the perception of her own vulnerability to HIV. For example, in a French maternity hospital some ten years ago, the new protocol for the management of a delivery of a seropositive woman required that the midwives wear a surgical smock, a double pair of gloves, but also a cap, goggles and surgical overalls. A former midwife was

[5] See Hancart Petitet (2003) for a study of the placenta in Zanskari society.

particularly defiant as regards the practice of these new measures: "I'm certainly not going to wear all that, it's too hot, the goggles are awful …, and anyway, at my age I'm not afraid of anything"[6].

*Limitation of the birth attendant power*

The study of the social and cultural context that fosters or places limitations on these preventive behaviours should lead us to inquire into the attitudes of obstetricians toward seropositive women and the way in which the birth attendant have incorporated preventive measures to ensure asepsis, in both normal deliveries and those with complications. Also, one must observe the manner in which the women mention, or do not mention, the fact that they are seropositive to the birth attendant, and the change in therapeutic conduct implied by this disclosure. In this framework, I explore the social role and position of the birth attendant as well as the determining factors of her abilities, knowledge and social capacities to apply preventive measures during delivery. This I analyze under two aspects: first, limitations connected with the training of birth attendants and, second, limitations connected with their social power. The integration of preventive measures for the MTCT of HIV in childbirth practices raises questions as to the understanding, assimilation and feasibility of the recommended practices. Comparable questions are found in studies done in the framework of the training of traditional birth attendants so as to reduce maternal mortality. Brigitte Jordan has shown (1980) that the deficiency in the training of birth attendants was first to be seen in the practice of an experimental and didactic method of knowledge acquisition, through biomedical instructors, in a system in which any traditional practice is absent or devalued. Evaluations of such programmes have shown that the birth attendants assimilated the vocabulary taught during the training and could orally outline the behaviour to be adopted (regarding, for example, the disinfecting of the umbilical cord), without however practising it.

While the birth attendant's way of practising can be limited, as we shall see, by her ability to acquire new practices, it can also be determined by her social capacity to implement them. For example, the studies of Roger and Patricia Jeffery (1993) conducted in India, in the Bijnor district of Uttar Pradesh, have shown that childbirth in this region was considered to be a shameful and polluting act. Traditional birth attendants were generally quite old women who, confronted with insecure familial and financial situations, resigned themselves to carrying out the devaluing and devalued function of handling the impurities of childbirth in order to survive. Their role was limited to the cutting of the cord and, in relation to the husband and the mother-in-law of the woman in

[6] Personal notes of the author (Maternité de CHRU, Puy de Dôme, France).

labour, they had no decision-making power concerning the birth. The question of the devaluation of the birth attendant is also the subject of works by Janet Chawla (1994), who showed the original role of Hindu brahmanic discourse in the social construction of the representation of the woman in general, and female body fluids in particular. According to this author, normative behaviour, including the control of female sexuality and the woman's reproductive power, as well as injunctions relating to notions of ritual purity and pollution described in ancient and sacred texts, would have made it possible to act on two levels: the perpetuation of the caste relations, on one hand, and the vindication of the ideology of gender relations to the advantage of the man, on the other hand..

Consequently, the notions of danger and impurity qualifying the event of birth offer another theoretical axis of study for our problematic. These notions can be explored by considering gender and the differential valency of the sexes, which is particularly interesting for showing invariants. For, "it is not so much because women have the privilege of giving birth to individuals of both sexes that it is necessary to appropriate their fertility, to share them among men (…), as for another reason that is very near, but very different. In order to reproduce identically, the man must go through the body of the woman. He cannot do it by himself. It is this inability that establishes the destiny of female humanity" (Héritier 2002: 23).

*Discrimination against the illness*:

The "gender" approach to MTCT of HIV, of which I have only mentioned one of the numerous aspects, serves here as a transition to present another axis of investigation: the problematic of discrimination. It will be recalled that discrimination is sustained by the fear of contamination and by pre-existing cultural schemata that make of illness a sign and consequence of a transgression. This is expressed in various attitudes (accusation, stigmatization, moral condemnation) and practices (avoidance, ostracism, undifferentiated treatment) (Desclaux 1996 in Benoist and Desclaux). From among numerous examples, I will retain here this testimony of a man in Zambia on the subject of attitudinal changes involved in the disclosure of seropositivity: "If a pregnant woman is ill and gives birth to a sick and premature baby who dies after three months, we then know that the woman was infected with HIV, it is our HIV test" (Chase 2001). An UNAIDS report (Bharat 2002) reveals that in the framework of pregnancy, discrimination is practised against numerous women on the basis of on a hypothetical seropositivity. In India, pregnant women are tested with or without their consent and feel compelled to be tested out of fear that the practitioners in medical structures would otherwise refuse to take charge of their delivery or forbid them any care. The report mentions

numerous cases of women who are stigmatized or punished for having transmitted the virus to their child. The punishment was more severe if the child was male, because of the value accorded to the male child (Chase 2001).

*The drug nevirapine as a social object*:

Before concluding this section devoted to the socio-cultural approach to the MTCT of HIV, the last research axis to be considered (although the list is not exhaustive) concerns the drug nevirapine as a social object. Since the establishment of preventive programmes for MTCT, women must undergo an antiretroviral treatment at the time of delivery and, in some programmes, it is administered to the newborn child. The drug becomes a social object around which are elaborated discourse and representations of the patient herself, of her family and of the obstetrician and health personnel. The study of the integration of nevirapine[7], among other local or biomedical treatments (such as the injection of ocytocine), into home-birth practices also represents an open door for questions relating to the anthropology of the drug in terms of container, content, image or power, research themes contiguous to those of the politics of reproduction, which I will describe below.

In addition, the precautions taken by birth attendants and health personnel are scarcely acceptable to the women, for various reasons that require clarification. Where screening has not been established, how is the HIV question introduced during the consultation with the traditional birth attendant, health agent or midwife? In this framework, the gathering of data can, for example, underscore a departure from practice aimed at concealing preventive messages, which have been stigmatized because of practices labelled "special HIV". One can imagine, for example, that the birth attendant generalizes the administering of the drug to all women whom she delivers, not only because of the dissimulation of the seropositivity of some patients, but also so as to strengthen the new power and the social recognition this new practice accords her.

**Other research perspectives**:

Apart from the socio-cultural approach I have just described, the anthropology of reproduction offers other perspectives regarding the question of the MTCT of HIV. I will retain three main research axes, vast fields of study that have yet to be cultivated.

[7] This treatment is most frequently employed in the countries of the South, where the prophylactic treatment may also be based on the combination of AZT and nevirapine.

*The medical approach to birth in anthropology*:

This approach is mainly centred on cases of maternal and infant mortality and observes the practices and constraints of the health actors in villages, health posts and centers as well as those in the hospital milieu. It approaches birth as a prism in the analysis of biomedical and local systems, their actors and their practices. The medical approach to childbirth practices ought to show the practices that favour or diminish MTCT. This analysis should be carried out parallel to the analysis of the practices to reduce obstetric risks, because the event of childbirth represents in the poor countries not only a potential risk of deferred death (of the newborn child infected by vertical transmission of HIV), but also a risk of immediate maternal and infant deaths in the case of unforeseen obstetric complications. Moreover, in these contexts, AIDS has the particularity of being both a direct and indirect cause of maternal death as, on the one hand, the pregnancy can contribute to the progression of the illness and of the immunodeficiency and, on the other hand, complications during pregnancy and childbirth and provoked abortions are more frequent among women who are HIV seropositive, particularly in the case of symptomatology (Berer 2000). One should recall that, according to the WHO, it is estimated that more than 500 000 women in the world die during pregnancy, childbirth or during the forty-two day period following birth. According to Thaddeus and Maine (1994), 75 per cent of the cases of maternal mortality would result from "direct" causes: haemorrhages, infections, toxaemias/eclampsias, birth with complications, haemorrhagic and infectious complications of abortions. The other cases result from indirect causes (lack of access to resources, health services, education, etc.)[8].

Consequently, this axis of study makes it possible to compare popular knowledge and practices with the reality of the given health system. It can therefore confront the WHO recommendations regarding the management maternal health (referral to emergency obstetrics – transportation – care) with their feasibility (limiting factors of a cultural nature, for example, the observation of *purdah*[9] among Afghan women; but also economic, as the cost of transportation and the provision of care in a system that charges for health care; or social, such as the relationship between the care-giver and the cared-for). All things considered, while focusing on practices relating to the transmission of HIV at birth in connection with obstetric risk, the question of the MTCT of

[8] See Hancart Petitet (forthcoming), who presents a critical view of the WHO classification distinguishing "direct" and "indirect" causes of maternal mortality. More generally, this article confronts the views of development and anthropology on the question of maternal mortality in Ladakh

[9] The veil that organizes the separation of the sexes according to Koranic injunctions.

HIV can also be understood as an opportunity to improve programmes for the reduction of maternal mortality, just as the question of HIV can be an opportunity to bring up to date and improve programmes promoting maternal breastfeeding (Desclaux 2002).

*The approach to birth as a prism of social change*:

The approach to birth as a prism of social change represents a vast field of study, two areas of which I will describe here. First, the concept of authoritative knowledge in obstetrics described by Jordan (1978) shows that, when there are several knowledge systems, one among them is predominant. This leads to a devaluation of the other systems and to an accentuated legitimization of the former. Jordan explored in her research the constitution and manifestations of authoritative knowledge in obstetrics, in both low- and high-technology systems. For example, she analyzed the question of the Caesarean in American hospitals to demonstrate the growing hegemony of the medical profession in the management of childbirth.

Studied from this perspective, the question of the MTCT of HIV allows one to view the construction of a new biomedical knowledge and a new local knowledge concerning the management of the delivery of a seropositive woman, and to analyze their interactions.

The second research axis concerns the question of access to biomedical health services as a sign of social change. For example, observing the manner in which some patients have free provision of care in some programmes for the prevention of MTCT (and the manner in which others do not) could show how access to prenatal consultation at the hospital and to adequate treatment can be understood in terms of power and/or social emancipation.

*The political approach to reproduction*:

This approach makes it possible to employ the question of reproduction as an entrance to the study of social life and the manner in which cultures are produced or challenged. It shows how reproduction is structured through social and cultural barriers at levels where the local and the global intersect (Ginsburg and Rapp 1977). Starting from the observation of the geographical variation in the rates of mother-to-child transmission of HIV (as high as 48 per cent in the South and less than 2 per cent in the North), our subject could be studied from the perspective of the inequalities of access to ARVs between North and South. Apart from this approach, it would be worthwhile to understand the processes and relations of power by which different categories of people are encouraged to reproduce and raise children, whereas others are discouraged from doing so.

Furthermore, it is necessary to explore how the increase in the use of maternal health care services, for example prenatal consultations, is connected with the evolution of the economic, ecological and social contexts, and how access to prenatal consultation at the hospital can be seen as a sign of power and/or social emancipation. Thus, in order to analyze one of the aspects of the concept of "stratified reproduction" (Colen in Ginsburg and Rapp 1997), it will be apposite to articulate questions of maternal health at levels of analysis encompassing the problematics of historical, social and political change in contexts in which, for example, pregnant seropositive women are encouraged to have an abortion (Chase 2001).

**Conclusion**

Childbirth is not merely a question of technical practices involving only the birth attendant and the woman in labour and relating to developments in public health. It involves a number of people inscribed in social relationships and relations of power and knowledge. The study of mother-to-child transmission of HIV therefore requires, beyond the medical and cultural approach to birth, the study of a broader social framework that encompasses the familial and social world of the concerned persons. Also needed is an investigation into the manner in which childbirth is the locus of expression of the familial and social consequences of the announcement of seropositivity. The study of the MTCT of HIV also leads one to consider the question of human rights and the different levels of responsibility, not only of couples and family members, but also of health professionals and states. Consequently, the study of the mother-to-child transmission of HIV in the context of childbirth practices must rest on an ethnography able to distinguish between "the foreground of the concerns" of the actors and commentators and the "background of conditions" which inform their situation (Farmer 1996).

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